

V. Soil and Water Conservation

The Berkshire Ecoregions contains abundant public water supplies. The state Department of Environmental Protection (DEP) monitors 594 public water supply sources in the Berkshire Ecoregions (**Table 13 and Figure 23**). These include 38 surface water reservoirs and 136 public ground water wells. There are 115,406 acres (10% of the 5 ecoregions) of contributing watersheds for Outstanding Resource Waters (ORWs) (**Figure 24 and Table 14**). Further, almost 11,789 acres (approximately 1.04%) of high or medium yield aquifers underlie the 5 ecoregions (**Figure 25 and Table 15**). Most of these occur in the sand and gravel deposits within the 5 ecoregions, which only comprise approximately 9% of the total area (**Figure 26 and Table 14**).

The Berkshire Ecoregions lie within the Connecticut, Deerfield, Farmington, Housatonic, Hudson, and Westfield River watersheds (**Figure 5**). There are 14,844 acres of lakes & ponds and 1,788 miles of rivers & streams in the Berkshire Ecoregions (**Figure 27 and Table 16**). There are also 20,493 acres of nonforested wetlands in the ecoregions (**Appendix II**).

Little data is available on the impacts of human activities on soil and water conditions in the Berkshire Ecoregions as a whole. Further, increases in developed land, and impacts associated with specific landuse or point-source discharges may pose threats to in-stream flows, water quality, and/or soil conservation. Off-road vehicle use and its potential for serious erosion problems is under discussion in the Berkshire Ecoregions.

Ecoregion	Public Water Supply Type ¹						Totals
	ESW	GW	NTNC	PW	SW	TNC	
Berkshire-Vermont Upland	3	30	19	-	15	131	198
Hudson Highlands	9	39	22	-	12	86	168
<i>Berkshire Transition Association</i>	6	23	8	-	11	59	107
<i>Western New England Marble Valley Association</i>	3	16	14	-	1	27	61
Southern Green Mountains	-	-	1	-	1	3	5
Southern Vermont Piedmont	4	20	8	-	4	26	62
Taconic Mountains	5	47	14	-	6	89	161
<i>Taconic Highlands Association</i>	2	11	2	-	3	32	50
<i>Western New England Marble Valley Association</i>	3	36	12	-	3	57	111
Totals:	21	136	64	-	38	335	594

Source: MASSGIS as of Feb 28, 2005

¹The type of PWS according to WQTS or the DWP Zone II database

ESW: *Emergency Surface Water*

GW: *Community groundwater well*

NTNC: *Non-Transient Non-community*

PW: *proposed well*

SW: *Community surface water source*

TNC: *Transient Non-Community*

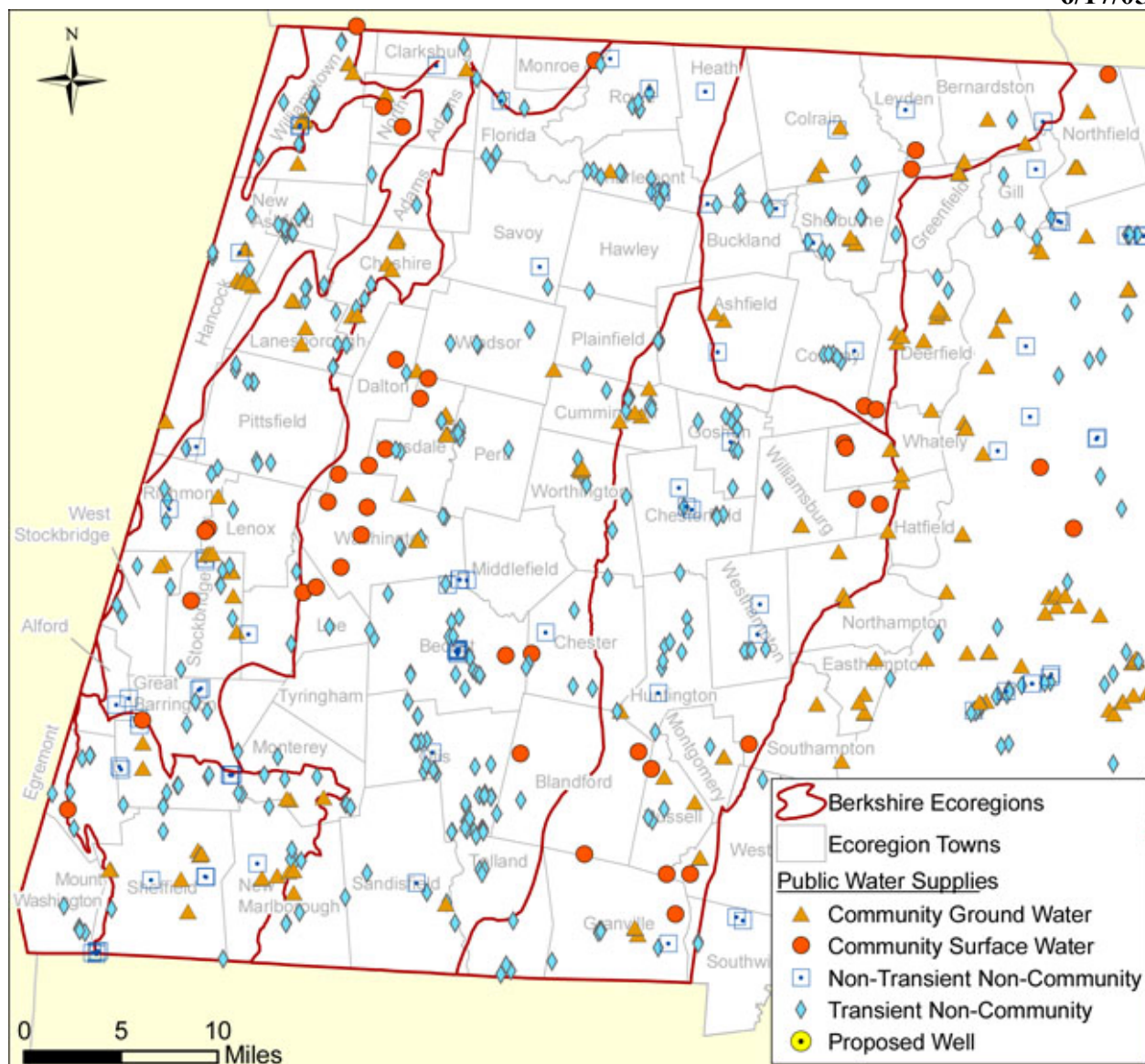


Figure 23. Public Water Supplies (Berkshire Ecoregions)

Source: MassGIS as of Feb 28, 2005

Table 14. Outstanding Resource Waters

Ecoregion	Acres
Berkshire-Vermont Upland	45,852
Hudson Highlands	54,359
<i>Berkshire Transition Association</i>	51,112
<i>Western New England Marble Valley Association</i>	3,247
Southern Green Mountains	-
Southern Vermont Piedmont	4,170
Taconic Mountains	11,025
<i>Taconic Highlands Association</i>	8,635
<i>Western New England Marble Valley Association</i>	2,390
Totals:	115,406

Source: MassGIS as of Feb 28, 2005

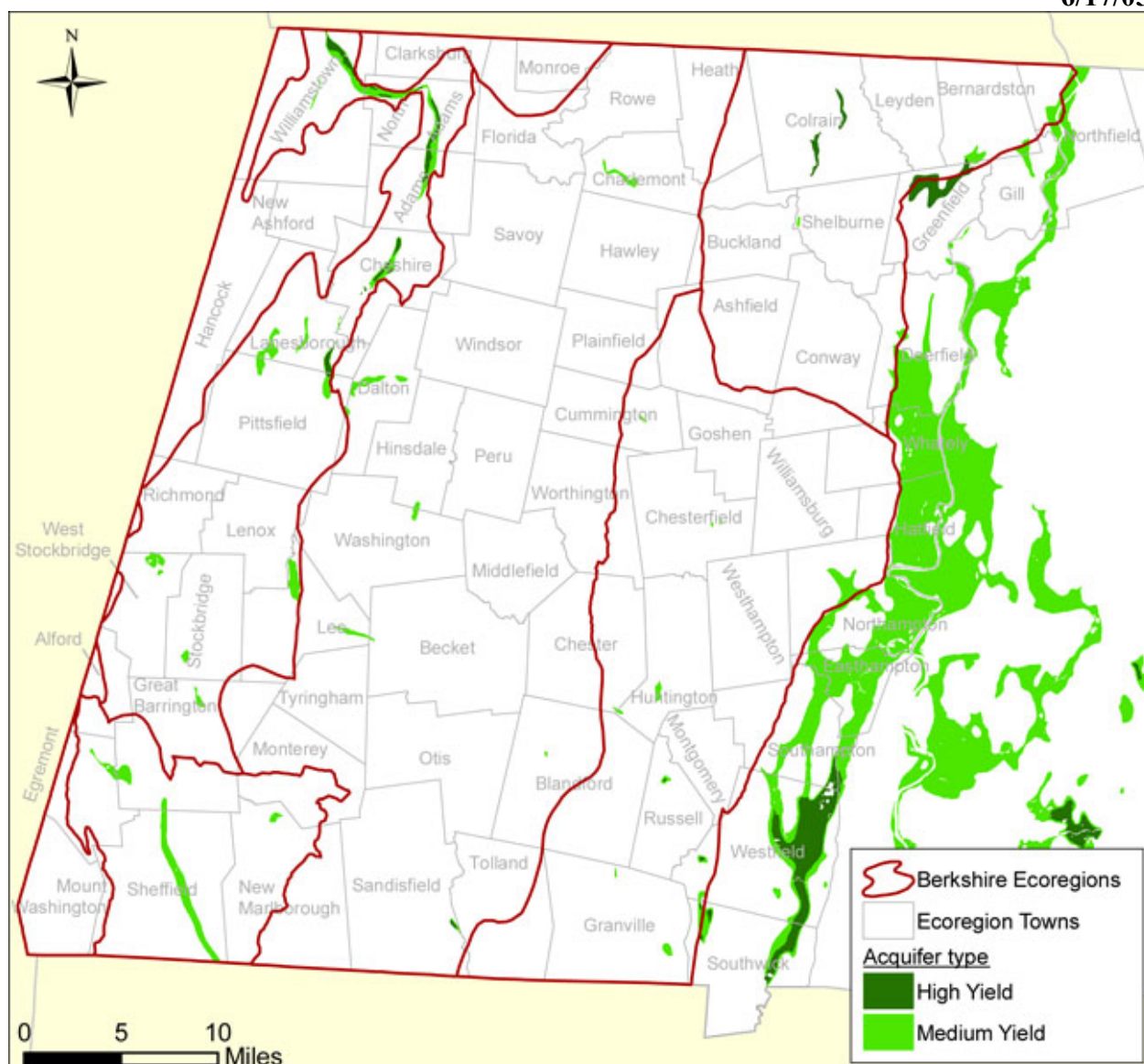


Figure 25. High and Medium-yield aquifers (Berkshire Ecoregions)

Source: MassGIS as of Feb 28, 2005

Ecoregion	Yield Type		
	High	Medium	Totals
Berkshire-Vermont Upland	45	1,337	1,382
Hudson Highlands	64	1,791	1,855
<i>Berkshire Transition Association</i>	64	1,791	1,855
<i>Western New England Marble Valley Association</i>	-	-	-
Southern Green Mountains	-	-	-
Southern Vermont Piedmont	926	1,341	2,267
Taconic Mountains	1,547	4,738	6,285
<i>Taconic Highlands Association</i>	-	-	-
<i>Western New England Marble Valley Association</i>	1,547	4,738	6,285
Totals:	2,582	9,207	11,789

Source: MassGIS as of Feb 28, 2005

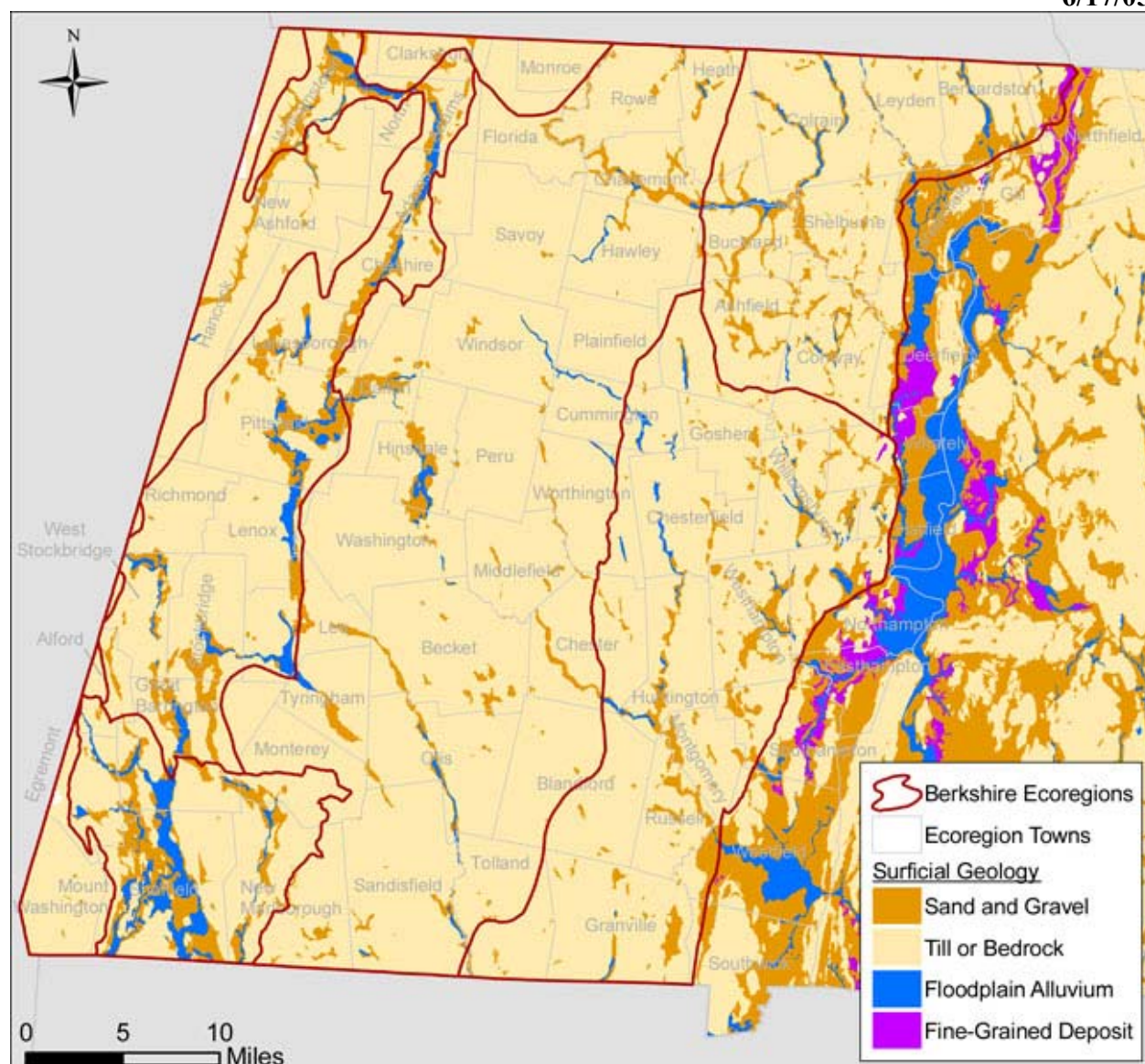


Figure 26. Surficial Geology (Berkshire Ecoregions)

Source: MassGIS as of Feb 28, 2005

	TYPE					
	Sand and Gravel	Till or Bedrock	Fine-grained deposits	Floodplain Alluvium	missing data	
Ecoregion	Acres					Totals
Berkshire-Vermont Upland	17,941	412,732	-	3,275	-	433,948
Hudson Highlands	35,090	257,638	259	11,932	1	304,920
<i>Berkshire Transition Association</i>	20,940	205,189	259	3,228	1	229,616
<i>Western New England Marble Valley Association</i>	14,150	52,450	-	8,704	-	75,304
Southern Green Mountains	747	19,655	-	98	-	20,500
Southern Vermont Piedmont	17,653	117,582	559	2,781	-	138,574
Taconic Mountains	26,945	199,207	-	8,972	944	236,068
<i>Taconic Highlands Association</i>	2,732	77,692	-	153	943	81,519
<i>Western New England Marble Valley Association</i>	24,213	121,516	-	8,819	1	154,549
Totals:	98,375	1,006,814	818	27,058	945	1,134,011

Source: MassGIS as of Feb 28, 2005

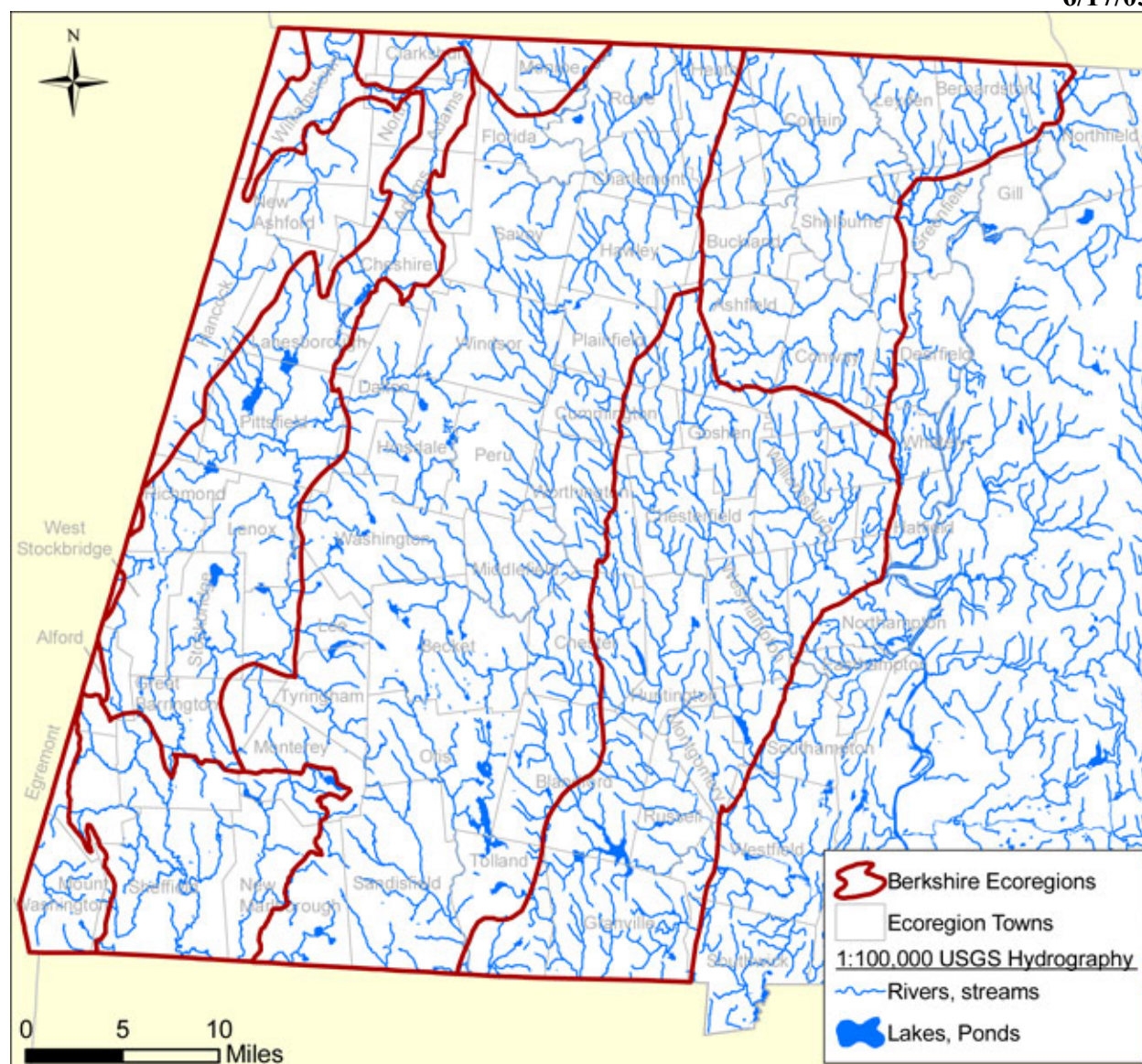


Figure 27. Surficial Hydrology (Berkshire Ecoregions)

Source: MassGIS as of Feb 28, 2005

Table 17. 1:100,000 USGS Hydrography		
Ecoregion	Rivers & Streams (miles)	Lakes & Ponds (acres)
Berkshire-Vermont Upland	635	6,379
Hudson Highlands	570	4,431
<i>Berkshire Transition Association</i>	461	3,528
<i>Western New England Marble Valley Association</i>	108	904
Southern Green Mountains	25	64
Southern Vermont Piedmont	239	673
Taconic Mountains	319	3,296
<i>Taconic Highlands Association</i>	79	164
<i>Western New England Marble Valley Association</i>	241	3,133
Totals:	1,788	14,844

Source: MassGIS as of Feb 28, 2005